Test Report
Consistency test

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	PCC(1:4:8)
Contractor	Sri. P. Ravichandra
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Material	Cement
Sample No	1
Sample Collected Date	3-Oct-2019
Test Date	5-Oct-2019

Sl. No.	Description	Trial 1	Trial 2	Trial 3	Trial 4	Trial 4
1	Weight of Cement	400	400	400	400	400
2	Percentage of water added (%)	27	28.5	29.5	30	31
3	Weight of Water (gm)	108	114	118	120	124
4	Initial Reading of Plunger (mm)	40	40	40	40	40
5	Difference (mm)	21	18	13	6.5	5

Results: Standard Consistency of Cement: 30.50%

Note:

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QUALIEX CIVIL DESIGN & CONSULTANCY

Test Report
Fineness test

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	PCC(1:4:8)
Contractor	Sri. P. Ravichandra
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Material	Cement
Sample No	1
Sample Collected Date	3-Oct-2019
Test Date	5-Oct-2019

Sl. No.	Determination	Trial 1	Trial 2
1	Weight of Cement before sieve (gm)	100	100
2	Weight of residue retained on 90um sieve (gm)	3.2	2.9
3	Percentage retained (%)	3.2	2.9
4	Average Percentage retained (%)	3.05	

Results: Residue of cement is: 2.9%

Comments: Maximum allowable residue by mass for ordinary portlad cement is 10%

Note:

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QUALIEX CIVIL DESIGN & CONSULTANCY

Project Management Services

Test Report
Compressive strength test

ect Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
t	The Asst. Executive Engineer, Yelahanka Division, BBMP
No	QCDC/BBMP/YNK/09/2019-2020
Type	PCC(1:4:8)
tractor	Sri. P. Ravichandra
Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V
erial	Cement
ple No	1
ple Collected Date	3-Oct-2019
Date	3-Oct-2019

Cube	Cement Grade	Age at Test (Days)	Slump (mm)	Weight (kg)	Dimension (LxWxH)	Density (kg/m3)	Max. Load (KN)	Area (mm2)	Compressive Strength (N/mm2)	Average Sample (n/mm2)
1	43	7	-	0.8	70.6x70.6 x70.6	2302.0	182	4984	36.00	36.75
2	43	7	-	0.825	70.6x70.6 x70.6	2358	185	4984	36.00	

esults: 7-days Compressive strength of cement is 36.75N/mm^2

omments: 7-days Compressive strength of cement should not be less than 33 N/mm^2

ote:

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QUALIEX CIVIL DESIGN & CONSULTANCY

Project Management Services

Test Report
Gradation test

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	PCC(1:4:8)
Contractor	Sri. P. Ravichandra
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Fine Aggregates
Sample No	1
Sample Collected Date	3-Oct-2019
Test Date	5-Oct-2019

Weight of Sample(gram): 200

Sl No.	IS Sieve Size	Weight retained	% retained	% Cumulative	Cumulative % of Passing		Remarks
					% Passing	Gradation limits	
1	10 mm	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Zone II Specification for PQC
2	4.75 mm	12	6.00	6.00	94.00	90-100	
3	2.36 mm	22	11.00	17.00	83.00	75-100	
4	1.18 mm	18	9.00	26.00	74.00	55-90	
5	600 μ	35	17.50	43.50	56.50	35-59	
6	300 μ	78	39.00	82.50	17.50	8-30	
7	150 μ	20	10.00	92.50	7.50	0-10	

Note:

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Test Report
Impact test

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	PCC(1:4:8)
Contractor	Sri. P. Ravichandra
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Material	Coarse aggregates
Sample No	1
Sample Collected Date	3-Oct-2019
Date	5-Oct-2019

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1307	1305
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	347	345
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	79	80
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	268	265
6	Aggregate Impact Value (w4 / w3)x100	%	22.77	23.19
7	Specified Limit	%	45.00	

Results: Average Aggregate Impact Value: **22.98** %

Note:

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Test Report
Concrete Compresive strength

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	M20
Contractor	Sri P. Ravichandra
Test Method	IS 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Bay
Material	Concrete
Sample No	2
Sample Collected Date	24-Oct-2019
Date	31-Oct-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	sive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	7	6.98	150*150*1	1982.22	324	0.0225	14.40	14.18	14.31
2	20	7	7.02	150*150*1	2044.44	314	0.0225	13.96		
3	20	7	6.88	150*150*1	1970.37	319	0.0225	14.18		
4	20	7	7.20	150*150*1	2139.26	322	0.0225	14.31	14.44	
5	20	7	7.01	150*150*1	2011.85	329	0.0225	14.62		
6	20	7	6.98	150*150*1	2035.56	324	0.0225	14.40		

Results: 7-days Compressive strength of cement is 14.31 N/mm2

Note:

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Project Management Services

Test Report
Concrete Compresive strength

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	M20
Contractor	Sri. P. Ravichandra
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V
Location	Bay
Material	Concrete
Sample No	4
Sample Collected Date	7-Nov-2019
Date	14-Nov-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength	Avg. Sample Strength	Avg. Strength
1	20	7	7.27	150*150*1	2038.52	330.00	0.0225	14.67	14.44	14.58
2	20	7	7.31	150*150*1	2100.74	320.00	0.0225	14.22		
3	20	7	7.17	150*150*1	2026.67	325.00	0.0225	14.44		
4	20	7	7.49	150*150*1	2195.56	328.00	0.0225	14.58	14.71	
5	20	7	7.30	150*150*1	2068.15	335.00	0.0225	14.89		
6	20	7	7.27	150*150*1	2091.85	330.00	0.0225	14.67		

Results: 7-days Compressive strength of cement is 14.58 N/mm2

Note:

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Project Management Services

Test Report
Concrete Compresive strength

Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
	The Asst. Executive Engineer, Yelahanka Division, BBMP
	QCDC/BBMP/YNK/09/2019-2020
	M20
	Sri. P. Ravichandra
Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V
	Concrete
	1
Collected	24-Oct-2019
	21-Nov-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	sive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	7.91	150*150*1	2343.7	520	0.0225	23.11	23.30	23.34
2	20	28	7.80	150*150*1	2311.11	525	0.0225	23.33		
3	20	28	7.70	150*150*1	2281.48	528	0.0225	23.47		
4	20	28	7.95	150*150*1	2355.56	530	0.0225	23.56	23.38	
5	20	28	7.91	150*150*1	2343.7	520	0.0225	23.11		
6	20	28	7.80	150*150*1	2311.11	528	0.0225	23.47		

Remarks: 28-days Compressive strength of cement is 23.34 N/mm2

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Test Report
Concrete Compresive strength

Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
	The Asst. Executive Engineer, Yelahanka Division, BBMP
	QCDC/BBMP/YNK/09/2019-2020
	M20
	Sri. P. Ravichandra
Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
	Bay
	Concrete
	3
Collected	24-Oct-2019
	21-Nov-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	sive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	8.04	150*150*1	2382.22	525	0.0225	23.33	23.54	23.67
2	20	28	8.11	150*150*1	2402.96	528	0.0225	23.47		
3	20	28	8.07	150*150*1	2391.11	536	0.0225	23.82	23.81	
4	20	28	8.11	150*150*1	2402.96	533	0.0225	23.69		
5	20	28	8.08	150*150*1	2394.07	539	0.0225	23.96		
6	20	28	8.10	150*150*1	2400.00	535	0.0225	23.78		

28-days Compressive strength of cement is 23.67 N/mm2

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QUALIEX CIVIL DESIGN & CONSULTANCY
Project Management Services

Test Report
Concrete Compresive strength

ject Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No 02
	The Asst. Executive Engineer, Yelahanka Division, BBMP
	QCDC/BBMP/YNK/09/2019-2020
No	M20
Type	Sri. P. Ravichandra
ructor	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Method	Bay
ation	Concrete
rial	4
ple No	7-Nov-2019
Collected	4-Dec-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	ive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	8.14	150*150*150	2411.85	527	0.0225	23.42	23.63	23.76
2	20	28	8.21	150*150*150	2432.59	530	0.0225	23.56		
3	20	28	8.17	150*150*150	2420.74	538	0.0225	23.91		
4	20	28	8.21	150*150*150	2432.59	535	0.0225	23.78	23.90	
5	20	28	8.18	150*150*150	2423.70	541	0.0225	24.04		
6	20	28	8.20	150*150*150	2429.63	537	0.0225	23.87		

marks: 28-days Compressive strength of cement is 23.76 N/mm2

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QUALIEX CIVIL DESIGN & CONSULTANCY
Project Management Services

Test Report
Steel

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Contractor	Sri. P. Ravichandra
Location	Bay
Material	Steel
Sample No	1
Sample Collected	1-Nov-2019
Date	6-Nov-2019

Sl No.	Dia in mm	Weight in Kg/mtr	Average Weight Kg/mtr	Ultimate Load in KN	Ultimate Tensile stress in N/mm^2	Average Ultimate Tensile Stress N/mm^2	Elongation in mm	Bending and Rebending
1	8	0.395	0.4	32.2	640.6	622.7	20	OK
	8	0.398		30.4	604.79			
2	10	0.601	0.6	47.2	600.97	597.15	20	OK
	10	0.593		46.6	593.33			
3	12	0.896	0.88	72.8	643.69	631.32	20	OK
	12	0.872		70	618.94			

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Project Management Services

Test Report
Concrete Compresive strength

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Job No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	100mm Slab
Contractor	Sri. P. Ravichandra
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Material	Precast Slab
Sample No	1
Sample Collected Date	19-Nov-2019
Test Date	26-Nov-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength	Avg. Sample Strength	Avg. Strength
1	20	7	6.79	150*150*15	2011.85	325	0.0225	14.44	14.15	14.30
2	20	7	6.83	150*150*15	2023.70	315	0.0225	14.00		
3	20	7	6.69	150*150*15	1981.93	315	0.0225	14.00		
4	20	7	7.01	150*150*15	2077.04	318	0.0225	14.13	14.46	
5	20	7	6.82	150*150*15	2020.74	325	0.0225	14.44		
6	20	7	6.79	150*150*15	2012.15	333	0.0225	14.80		

Results: 7-days Compressive strength of cement is 14.30 N/mm2

Note

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Project Management Services

Test Report
Concrete Compresive strength

Project Name	Improvements to Renuka Yellamma Temple Compound Near AD Colony in Chowdeshwari Ward No.02
Client	The Asst. Executive Engineer, Yelahanka Division, BBMP
Lab No	QCDC/BBMP/YNK/09/2019-2020
Mix Type	100mm Slab
Contractor	Sri. P. Ravichandra
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Material	Precast Slab
Sample No	1
Sample Collected Date	19-Nov-2019
Test Date	17-Dec-2019

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strengt	Avg. Sample Strength	Avg. Strength
1	20	28	7.90	150*150*	2340.74	521.00	0.02	23.16	23.36	23.37
2	20	28	7.80	150*150*	2311.11	524.00	0.02	23.29		
3	20	28	7.70	150*150*	2281.48	532.00	0.02	23.64		
4	20	28	7.95	150*150*	2355.56	530.00	0.02	23.56	23.38	
5	20	28	7.91	150*150*	2343.70	520.00	0.02	23.11		
6	20	28	7.80	150*150*	2311.11	528.00	0.02	23.47		

Results: 28-days Compressive strength of cement is 23.37 N/mm2

Note:

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